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PATENT SPECIFICATION

669,893

Date of Application and filing Complete Specification : May 27, 1948.

No. 14365/48.

Application made in United States of America on May 27, 1947.

Complete Specification Published : April 9, 1952.

Index at acceptance:—Class 8(i), I2(h:j:x).

COMPLETE SPECIFICATION.

Improvements in and relating to tank type vacuum cleaners

We, THE BRITISH THOMSON-HOUSTON COMPANY LIMITED, a British Company having its registered office at Crown House, Aldwych, London, W.C.2, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to tank type vacuum cleaners and especially to what are termed usually hand cleaners, i.e., relatively small light weight cleaners adapted to be carried about by the user by means of a handle or shoulder strap, although the invention is not limited thereto necessarily.

The object of the invention is to provide an improved construction and arrangement in a cleaner of this type wherein as a part of the cleaner structure there is provided a cover or receptacle which provides a storage space for the suction hose, the suction tubes, and the tools such as the suction nozzles which form a part of such cleaners.

A tank type vacuum cleaner made in accordance with this invention is constructed so as to be completely portable in one container, the suction fan and dust-bag being permanently built into a part of the container, while the hose and a variety of attachments for the same are placed in another part of the container when not in use, and the container having a discharge opening so arranged that the hose can be attached to it when the cleaner is to be used as a blower.

In the accompanying drawings Fig. 1 is a perspective view of a vacuum cleaner embodying the invention; Fig. 2 is a perspective view on a larger scale than Fig. 1 showing a cover which forms a part of the structure in open position; Fig. 3 is a view similar to Fig. 2 but with the attachments for the cleaner removed; and Figs. 4 and 5 are perspective views of a modification.

Referring to the drawing, 1 indicates a tank type vacuum cleaner which may be of any known or suitable construction in so far as its enclosed mechanism is concerned. Such cleaners comprise an electric motor which operates a suction fan and a bag which forms a filter for catching and retaining the dirt. At one end of the casing of the vacuum cleaner is a suction inlet opening 2 with which a hose 3 may be connected. At the other end of the casing is a suitable discharge opening (not shown) for the discharge of air after it passes through the filter. The hose may be connected with the discharge opening when the cleaner is to be used as a blower. Any suitable means may be used for fastening the hose in the end openings.

In the present instance there is shown as attachments for the cleaner two tube sections 4 and 5, an elongated suction nozzle 6, a round brush suction tool 7 and an elongated suction tool 8. These are known types of attachments or tools used with tank type vacuum cleaners. They are shown by way of example. Additional or other tools may be provided if desired. By the term attachments as used herein, we mean the hose and the various tools which may be provided for connection with the hose. The cord of the vacuum cleaner motor is indicated at 9. At the inlet end of the cleaner is a hinged end cap 10 fastened closed by a suitable latch 11. End cap 10 may be opened to give access to the interior of the cleaner for the removal and cleaning of the bag 12.

In the embodiment of the invention shown in Figs. 1 to 3, the receptacle comprises a recessed cover 13 which is hinged to casing 1 of the cleaner along the edge 14. It is open at its one side and is shaped to conform to the contour of the vacuum cleaner casing and to fit down over its upper portion, the cleaner casing being provided with a ledge 15 against which the edge of the cover or receptacle fits. The cover may be fastened to the cleaner with its edge in firm engagement with ledge 15 by suitable clamp means, a clamp of known type being indicated at 16. Any suitable number and

arrangement of clamps may be used.

The attachments are mounted inside the cover on its top wall, the cover having a depth to house the same. Suitable fastening means are attached to cover 13 for holding attachments. They may comprise U-shaped spring clamps 17 as best shown in Fig. 3, the clamps being of a size and arrangement to hold the several attachments as shown clearly in Fig. 1. Casing 1 is of a size such that there is provided a pocket 18 at one side of the vacuum cleaner proper in which hose 3 and cord 9 may be stored as shown in Fig. 1. An electric switch for the cleaner motor is indicated at 19 and a handle for carrying the structure is indicated at 20.

When the cleaner is not in use the hose and cord are positioned in pocket 18, the other attachments are mounted in the cover or receptacle, and the cover or receptacle is fastened closed as shown in Fig. 1. This forms a compact unit which is easily carried about by the handle 20 and which can be stored readily. When the cleaner is to be used the latch 16 is released and the cover or receptacle opened. The hose is then removed from pocket 18 and attached to the cleaner after which the tools it is desired to use are attached to the hose. The cover may be then again fastened closed, the cord 9 extending out through the slot at the end of the casing. The cleaner may be then used in the ordinary way, either resting on a floor or other surface or being carried about by the handle 20. After use of the cleaner is completed the cover may be opened, the attachments reassembled therein and in pocket 18 and the cover again fastened shut.

In Figs. 4 and 5 is shown another form of our invention wherein the tank type vacuum cleaner proper 21 is mounted in a receptacle 22. On the ends of the cleaner casing 21 are clamp blocks 23 which limit the extent to which the cleaner casing drops down into receptacle 22 as shown clearly in Fig. 4. On the ends of receptacle 22 are clamps 24 which engage clamp blocks 23 to fasten the cleaner to the receptacle. On the top of the cleaner is a handle 25 and hooks to which may be attached a suitable shoulder strap 26. The hose is attached to a discharge opening 27 when the cleaner is in use. Receptacle 22 is of a depth such that when the cleaner is mounted in its open top there is left between the bottom of the cleaner and the bottom of the receptacle a pocket or space of a size sufficient to hold the hose, the shoulder strap, the other attachments, and the cord.

Normally all the attachments, the shoulder strap 26 and the cleaner cord are positioned in receptacle 22 and the cleaner 21 is attached to the receptacle as shown in Fig. 4. The structure may be then carried about and stored as a unit. When it is to be used the cleaner is detached from receptacle 22 and utilized in the usual manner, the attachments being readily accessible through the open top of the receptacle.

By the invention we provide a vacuum cleaner construction which is compact and one wherein the attachments are carried by means which in substance forms a unitary part of the vacuum cleaner structure. By this means they are stored along with the cleaner proper and are always conveniently assembled for use. At the same time the attachments are compactly assembled so as to occupy a minimum amount of space.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A tank type vacuum cleaner constructed so as to be completely portable in one container, the suction fan and dust-bag being permanently built into a part of the container, while the hose and a variety of attachments for the same are placed in another part of the container when not in use, and the container having a discharge opening so arranged that the hose can be attached to it when the cleaner is to be used as a blower.

2. A tank type vacuum cleaner as claimed in Claim 1, in which the part of the container enclosing the suction fan and dust-bag and having the discharge opening is detachable from the part holding the hose and attachments.

Dated this 19th day of May, 1948.

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Printed for Her Majesty's Stationery Office by George Berridge & Co., Ltd., London. (1017-1952).
Published at The Patent Office, 25, Southampton Buildings, London, W.C.2,
from which copies may be obtained.

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SHEET 1

FIG.1.

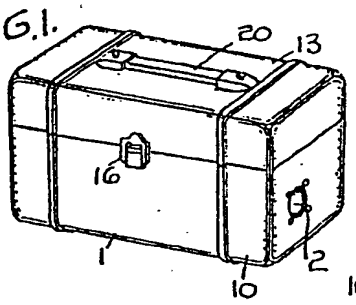


FIG.2

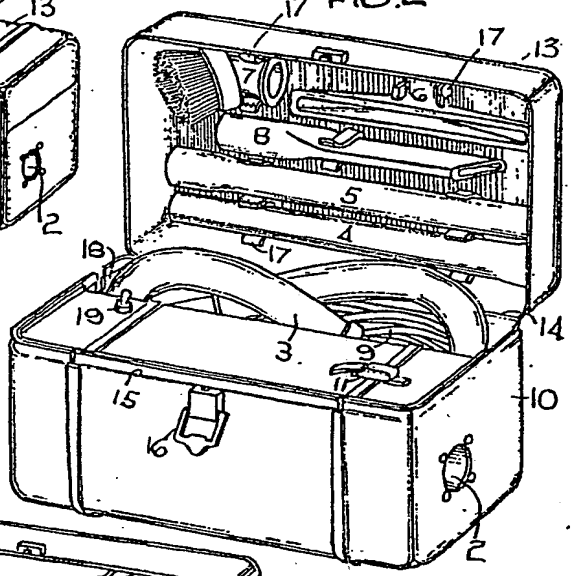
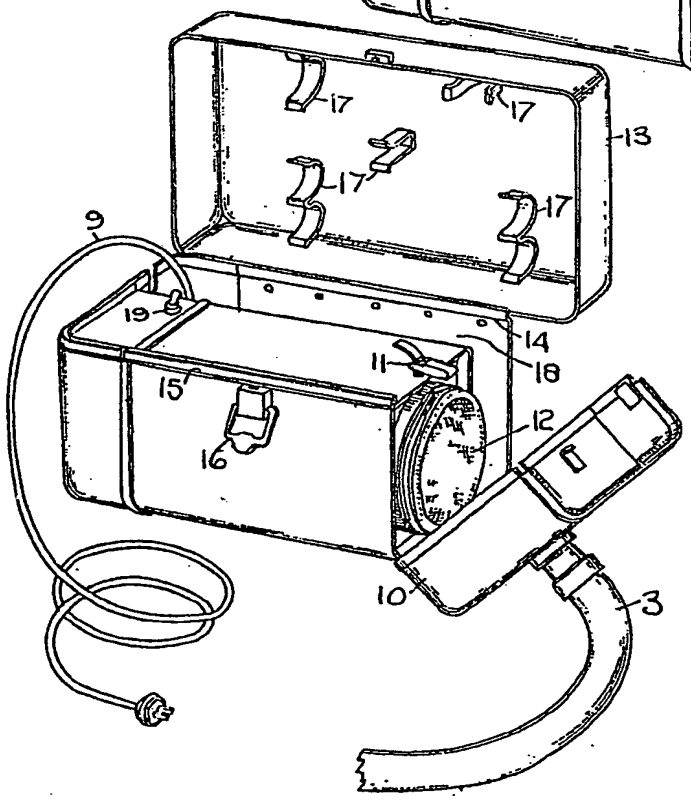


FIG.3.



This Drawing is a reproduction of the Original on a reduced scale